

CEDAR WOOD FOR BUILDING PURPOSES.

Sir,—In your last number, a subscriber under the signature of *Edificator*, desires to be furnished with some data respecting the strength of American cedar wood, in reference to an article which appeared in No. 177 of your publication, signed J. E.

Desirous to communicate what information we are possessed of on the subject, we have great pleasure in furnishing your correspondent with the following facts, trusting that they may prove of some advantage both to your enquiring correspondent and to the generality of your readers.

Pencil cedar is imported from the United States in large parcels, at Liverpool and in smaller at this port, and is extremely cheap in consequence of its abundance, and its exemption from the charge of freight, as it is shipped as basement stowage for cotton; and lastly, in consequence of their being always a large stock of this article on hand both in Liverpool and London, owing to the constant excess of supply over the demand. This cedar wood is used in England by black-lead pencil manufacturers, for the inward parts of cabinet works, and various kinds of fancy nicknackery. It is likewise exported to Germany, where it is employed for similar purposes. Its price in the London markets is from 4d. to 5d. per superficial foot, and sometimes it is even as low as 3d. In Liverpool the price runs generally from 3d. to 4d.

The lower qualities are very seldom regularly squared, and even when they are, the corners are full of sap, so that after being clearly marked out, it would assume more of an octagonal form, and might then be very well employed for pillars, columns, &c. Its texture is very fine and well known; it takes a fine polish, and emits a fragrant odour, whence it is generally used in the construction of water closets, boarding of cupboards, &c.

It is sometimes not free from knots, which are injurious to the work, and affect also its appearance, since these knots are often surrounded by white spots which are very offensive to the eye, marrying as they do the beauty of the work. In the construction of common buildings, it will not, probably, ever supersede good foreign fir or oak, and as American cedar of middling quality is 50 per cent. higher in price than Dantric timber or Memel oak, it would never be substituted for these, but it ought to be more generally used than it is at present, though for other purposes. Indeed, some months since, we proposed to Messrs. Grissell and Peto to employ it in some railway buildings, in which a union was required of lightness, neatness, and durability, and some elegance withal, and likewise for the water-closets in the Houses of Parliament.

As to the durability and solidity of American cedar, experiments have furnished unquestionable evidence that it not only resists the weather, but that exposure to the atmosphere hardens it and improves its quality; hence it is used in the United States for railway sleepers in preference to any other wood, and for which it is in part better adapted in every respect than any other. Nor is cedar wood liable to putrefaction; hence, probably, the ancients used it for ship-building.

Muschenbrock has made some experiments to try the comparative strength of cedar, and he found it to be to that of oak as 4880 to 17300; but unfortunately we are ignorant of the description of cedar employed by him in his experiments: most probably it was either of European growth, or that grown in Cuba, which is much more brittle, as in his time any other description was scarcely known, and cedar of any description scarcely ever imported, and if so, never used to any extent deserving to be noticed. It seems, however, certain to us, that he did not employ pencil cedar, as the following experiment made by us would appear to prove.

We have taken two panels, one of oak and one of cedar, both of the same dimensions, namely, three feet in length, six inches wide, and one-fourth of an inch in thickness; from each of these boards, and from the centre, we suspended similar weights, and indeed we were astonished to perceive that we were enabled to increase the weights till they reached ninety pounds, before the boards showed any indication that they were about to burst (transversely, of course); but even when we stopped, the oak

(wainscot) showed much greater inclination to break than the cedar, and after the boards had been freed from the weights, the oak had become bent or warped to the extent of upwards of an inch, and remained so, whilst the cedar, resuming its elasticity, resumed also immediately its perfectly straight form, though during the experiment it had been bent to almost the same degree.*

We have this year imported into Liverpool, a parcel of pencil cedar for the first time in round logs and free from sap; and, consequently, in this case, extremely useful for building purposes, to which it is to be hoped this description of wood may be more generally applied, considering the advantages which it possesses.

We concur in J. E.'s remarks on pencil cedar, and generally that the exotic woods which now pay duty, could be replaced with great advantage by different kinds of European timber and cabinet woods.

It was in 1843 (towards the latter end of that year), that we proposed to Mr. Charles Barry, in our general report, to use exotic woods, which are extremely costly in all other capitals of Europe, and at a very moderate price to be had in England, for the embellishment of the new houses of Parliament, but our proposal was not adopted, for this reason, namely, that only oak was to be used, in conformity with the gothic style of building, and with the epoch of the origin of gothic design, and at which period exotic woods were not known. And we concurred in this view; the more so, as notwithstanding the beauty of other sorts of wood to the eye, we regard oak as the queen of the forest, not only in regard to its beauty, but likewise with respect to its durability: the beauty and variety of the grain, indeed well entitles it, in many respects, to dispute the palm with the universally admired mahogany.

It is true, mahogany is very moderate in price, but only the inferior sorts are cheaper than wainscotting; wood of a finer and superior quality fetches very high prices. Lately at a sale, Cuba mahogany was sold at 4d. per foot, whilst a small but beautiful log of the same wood was sold at the same time at 10s. 6d. per superficial foot. Mahogany has likewise lately been admitted at Lloyd's at a higher quotation.

We should be glad if J. E. would continue his communications on the subject of ornamental wood. Should he, however, decline doing so, we shall have much pleasure in following up the subject ourselves, from time to time as we may find leisure, and you, Sir, may feel disposed to favour us with a corner in your valuable publication.

With our best wishes for the further success of your publication, and thanks for your courtesy, we are yours sincerely, STREINITZ.

DILAPIDATIONS.

WAKEFIELD AND BINGLEY F. BROWN.

THIS was an action in the Sheriff's Court, on the 9th inst., to recover damages for dilapidations. The actual plaintiff was a Mr. Bingley, a licensed victualler, at the King's Arms, Shoreditch. The defendant is a livery-stable keeper.

Mr. Crowder stated the case. It appeared that in 1826, Mr. Bingley erected extensive stabling, &c., which he leased in 1830 to a Mrs. Brown, and on her decease in 1840 the premises fell into the possession of the defendant till 1843, when the defendant, who considered that if he got rid of the lease, he also got rid of his liability under the covenants of the lease, assigned it to a person named Hardwick, who was a mere pauper, and could neither pay rent nor put the place in repair. The action was therefore brought to recover for the damage done during the time the defendant held the lease, and for which he was thought clearly liable.

Witnesses were then called for the plaintiffs, who estimated the damage at about £201; but after a consultation between the learned counsel, it was agreed that a verdict should be taken for 40l.

* In an experiment to try the strength of both by pressure, the result was in both nearly alike; or, if there were any slight difference in the power of resistance, it was in favour of the pencil cedar. According to some writers, the strength is about two-thirds in proportion to that of oak, namely, 667 horizontally, and 770 vertically, when we adopt 1,000 for oak horizontally as a standard, and 997 vertically for a cube of 14 inch.

RAILWAY JOTTINGS.

THE European and American—in short, the general—railway progress at the close of last year is thus summed up in a table, apparently of French or rather Belgian extraction, in the *Mining Journal* of Saturday last. [A kilometre is rather more than half a mile English.]

Belgium.....	Kil. 559.....	Fr. 145,984,014
England.....	3,638.....	2,000,000,000
Holland.....	154.....	32,340,000
Germany.....	3,140.....	502,400,000
United States.....	7,500.....	846,075,000
France.....	986.....	330,000,000
Denmark.....	106.....	12,508,000
Italy.....	228.....	45,782,000
Cuba.....	37.....	7,030,000
Russia.....	52.....	14,560,000

Total, kilometres 16,400 3,936,989,414 fr.

Thus, it is shown, that calculating the population of the two quarters of the globe in which railways have been introduced at 234,000,000, a capital of 19 f. 55 c. has been already expended on the whole for each individual. The comparative cost of construction is estimated at—for Belgium, 261,000 f.; Great Britain, 550,000 f.; Holland, 210,000 f.; Germany, 160,000 f.; United States, 113,000 f.; France, 335,000 f.; Denmark, 148,000 f.; Italy, 200,000 f.; Cuba, 190,000 f.; Russia, 280,000 f.—The mean speed per hour upon several of the principal English lines is thus represented:—North Midland, and Eastern Counties, 58 kil. (33 miles); Great Western, 53 kil. (31 miles); London and Birmingham, 43 kil. (25 miles); Manchester and Leeds, 39 kil. (24 miles); Birmingham and Gloucester, 35 kil. (24 miles). The remarkable progress of the speed of locomotives since their introduction, of course in England, is noted thus:—

In 1824, the first locomotives in England, with a 40-ton power, travelled at the rate of only 10 kil. per hour (6 miles). So great was the improvement in a few years, that, in 1829, the Rocket travelled at the rate of 25 kil. per hour (15 miles); in 1834 the speed of the Fire Fly was 34 kil. per hour (20 miles); in 1839, the North Star moved with a celerity of 62 kil. per hour (37 miles); and at the present moment, locomotives have arrived at a speed of 70 kil. per hour (42 miles). During the same period (since 1825) the quantity of fuel required for the propulsion of locomotives was diminished five-sixths—that is, six tons of coal were consumed formerly for one at the present moment.—L. R., a correspondent of the *Daily News*, has very properly pointed out the distinction between provisional and managing committees, the latter superseding the former altogether as soon as they are appointed; so that "to hold a provisional committee, who has been deposed, or who has deposed himself, of all power, liable for all the actions of the managing committee for months and years, is monstrous."—The recent scrip forgeries and thefts have afforded a good pretext with companies winding up, for alarming their subscribers into an easy acquiescence with their deduction of a good round sum for preliminary expenses, and payment of the remnant of their deposit in full of all claim.—The recent minute of the Board of Trade is now said to have been the production of Sir Robert Peel himself, at least in a negative sense, by emasculation of the original report.—The great increase of traffic on the Hertford branch of the Eastern Counties Railway is to be accommodated by the formation of a double line of rails.—Two new stations were opened week before last on the Ashford and Ramsgate branch of the South-Eastern line, one at the old and till now decayed collegiate town of Wye, and the other at Grove Ferry, midway between Minster and Canterbury. "Locomotives," says the *Railway Chronicle*, "now pass half way between Ramsgate and Margate, and it is expected that the whole line will, in two months, be available for the swarms of yellow-slipped Cockneys that congregate on the Isle of Thanet in August and September."—The Grand Junction Company have purchased at Liverpool ground for the extension of their Lime-street station works. The School for the Blind, in London-road and Hotham-street, and the church and school there are included in the purchase, the company having engaged to erect a new church and school in Herdman street, on ground also purchased by them.